

Abstract

The static mixer (2) for a high-viscosity flowing fluid (20) includes mixing elements (1) which are made as monoliths and sleeve elements (5) in the form of tube pieces by means of which the mixing elements are positioned, as well as a housing (3) into which the sleeve elements are inserted together with the mixing elements. The mixing elements each include a lattice structure (10). Webs of this lattice structure cross at crossing positions (12) which are arranged at bar-like regions (13) transversely to a main flow direction (30) of the fluid, with the main flow direction being given by a longitudinal axis of the housing. The sleeve elements are in contact at their ends via abutment surfaces (50). Cut-outs (54) exist at these ends into which two ribs (41, 42) of the mixing elements are inserted in a shape-matched manner – in a shape complementary to the cut-outs. The ribs are made in the manner of annular segments. Two end surfaces (41a, 41b, 42a, 42b) of each rib are each arranged such that centres of the end surfaces can each be connected by lines which are aligned at least approximately the same as the bar-like regions (13) of the crossing positions. These bar-like regions have cross-sectional surfaces which are not larger than radial cross-sectional surfaces of the ribs

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